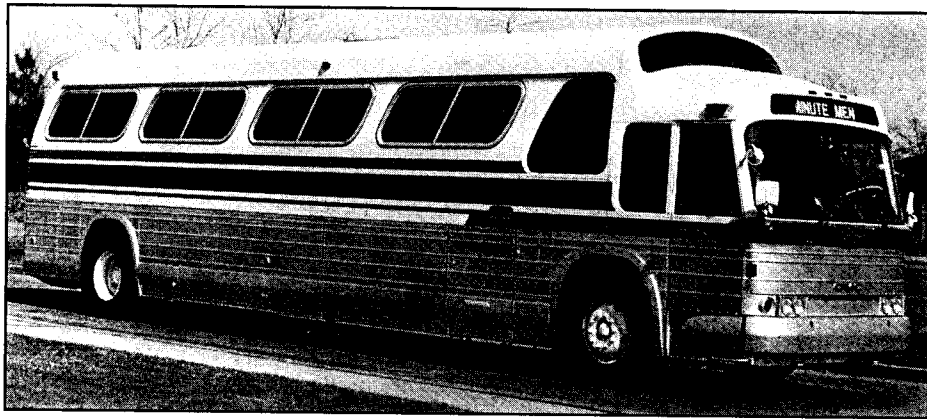


# The Dean Library Fact Sheet

General Motors Corporation

PD-4903 - PD-4905 - P8M-4905A - H8H-649



Modern Technology Preserving The Hallmark Of Ground Transportation

40310

COACH INFORMATION NETWORK  
[www.coachinfo.com](http://www.coachinfo.com)

## **SAFETY ADVISORY**

This Fact Sheet is designed to help you determine the pros and cons of a coach that you have purchased or may be contemplating the purchase.

Because you may not be aware of the possibility of dangers that exist when inspecting or maintaining a coach it is imperative that at least one safety advisory is followed:

**NEVER GO UNDER A COACH THAT  
IS NOT SECURELY BLOCKED TO  
PREVENT ROLLING OR SETTLING.**

Serious injury or death can result from a coach rolling or its suspension system collapsing.

## **NOTICE:**

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DEGRADATION OF COPY  
IS TO BE EXPECTED.

**General Motors Corporation**  
**PD-4903 - PD-4905 - P8M-4905A - H8H-649**  
**PD-4107 - PD-4108 - P8M-4108A**

Manufactured by General Motors Corporation

Production History:

Year	Model	Quantity
1968-1969	PD-4903	401
1970-1971	PD-4905	331
1972-1978	P8M-4905A	2027
1966-1969	PD-4107	1267
1970-1971	PD-4108	68
1972-1979	P8M-4108A	232
1979-1980	H8H-649	233

The PD4903 was the first 40-foot GM bus available to non-Greyhound operators. (Greyhound had an exclusive 40-foot design, the PD-4501 Scenicruiser)

The next version, the PD-4905, generated only 331 sales. The P8M-4905A introduced an optional fully-retractable third axle; 2027 were sold in seven years of production.

GM discontinued production of intercity buses in 1980, having produced only an average of 230 buses annually since 1975. GM's intercity coach line began to decline in the mid-1960s as Greyhound and Trailways began building their own buses. Furthering the decline of GM's intercity market, many smaller carriers began buying their buses from Greyhound's subsidiary Motor Coach Industries or Trailways' Eagle Manufacturing.

## Specifications

Length: 40 Feet

Length: 35 Feet

Width: 96 Inches

Width: 96 Inches

Height: 132 Inches

Height: 132 Inches

Wheelbase: 319 Inches

Wheelbase: 260 Inches

Turn Radius: 49 Feet

Turn Radius: 44 Feet

Typical Engine: Detroit Diesel 8V-71

Typical Engine: DDA 8V-71

Seating: Up To 53

Seating: 38-45

The information supplied in this Fact Sheet will be split in four sections. The first section will cover the engine and engine compartment. The second section will cover the body and frame. The third section will cover the suspension. The fourth section will be miscellaneous items that should be taken into account when looking to purchase one of the coaches titled above. This is a general overview of some areas that need to be examined before purchasing a coach.

# GENERAL DATA

The data listed below includes only general information on the P8M-4108A and P8M-4905A Coaches. For specific data and specifications, refer to "Specifications" at end of each manual section or sub-section.

## MODEL DATA

	P8M-4108A	P8M-4905A
Length (overall) .....	35 ft.	39 ft. 11 in.
Width (overall) .....	95¾ ft.	95¾ ft.
Height (maximum) .....	131½ in.	131½ in.
Wheelbase .....	259½ in.	318½ in.
Track		
Front .....	79¼ in.	79¼ in.
Rear (center of dual tires) .....	70½ in.	70½ in.
Turning Radius		
Wheels (right and left) .....	39.6 ft.	45 ft.
Body Corner (right and left) .....	43.6 ft.	49 ft.
Tire Size (standard) .....	12.00/22.5	12.00/22.5
Fuel Tank Capacity .....	Standard—145 gal. Optional—165 gal.	145 gal. 165 gal.
Cooling System Capacity (including heating system) .....	98 qts.	98 qts.

## ENGINE DATA

Engine Model .....	8V-71N	8V-71N
Displacement .....	576.5 cu. in.	576.5 cu. in.
Bore and Stroke .....	4¼ in. x 5 in.	4¼ in. x 5 in.
Compression Ratio .....	18.7:1	18.7:1
Brake Horsepower at Governed Speed (1800 rpm) .....	252	252

## SERIAL NUMBER LOCATIONS

Delay and confusion can be avoided when correct serial numbers of vehicle and engine are placed on parts orders and correspondence. Locations of these serial numbers are illustrated below:

MFD. BY GENERAL MOTORS CORP. ☐

GVWR ☐

GAWR Frt. ☐ Rear ☐ Ret. ☐

THIS VEHICLE CONFORMS TO ALL APPLICABLE  
FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN  
EFFECT ON THE DATE OF MANUFACTURE SHOWN  
ABOVE. MODEL ☐ Bus ☐

With Tire Size ☐

Ret. Axle ☐

**GM**

A-3387

**GMC**

**GMC TRUCK & COACH DIVISION**

® GENERAL MOTORS CORPORATION ®

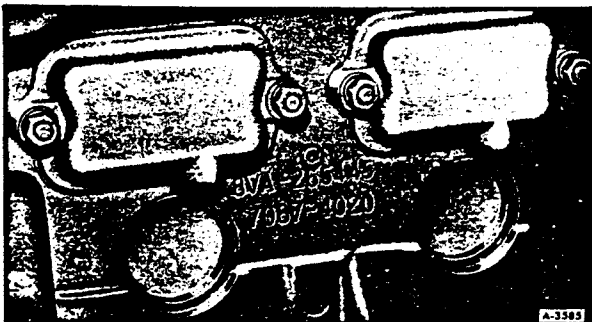
PONTIAC, MICH., U.S.A.

TYPE ☐ COACH No. ☐

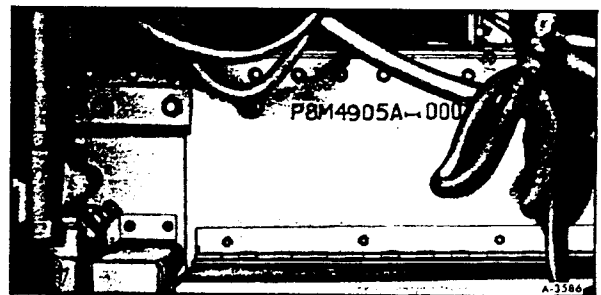
**COACHES**

PLATE ON RIGHT SIDE OF DASH

DECALON DRIVER'S WINDOW POST



RIGHT SIDE OF CYLINDER BLOCK




IN W/S WASHER COMPARTMENT

# INTRODUCTION

## SERIAL NUMBER LOCATIONS

Delay and confusion can be avoided when correct serial numbers of vehicle and engine are placed on parts orders and correspondence. Locations of these serial numbers are illustrated below:

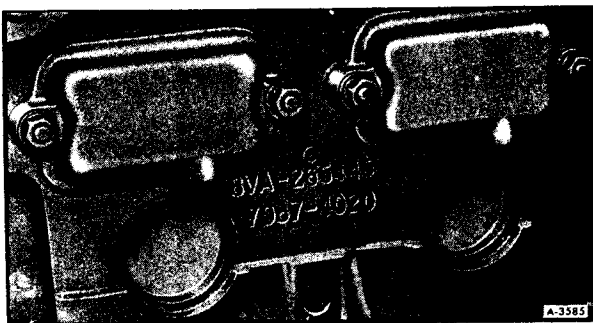
MFD BY GENERAL MOTORS CORP.		DATE:	
GVWR-	LB/ KG		
GAWR FRT. -	LB/ RIMS, @	KG WITH PSI/ KPA	TIRES, COLD SINGLE
GAWR REAR -	LB/ RIMS, @	KG WITH PSI/ KPA	TIRES, COLD DUAL
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.			
MODEL	SERIAL NO.	BUS	

C-0776

**Certification Label**



**Plate on Right Side of Dash**



**8-Cylinder Engine - Right Side  
of Cylinder Block at Center**



**Location in Windshield Washer Compartment**

## Section #1 Engine & Compartment:

The engine should always be the first area to examine when looking at any coach, for the engine can be the most expensive component to repair or replace in any coach. Some of the things that need to be checked concerning the engine are as follows.

1 - Hard Starting; A Detroit engine that must be turned over many times before starting can be a sign of Low Compression. There are other factors; engine out of tune for instant; that can cause a Detroit engine to be hard to start. However the bottom line is, a Detroit engine that is in good condition and properly tuned should start without many turns especially after the engine is warm.

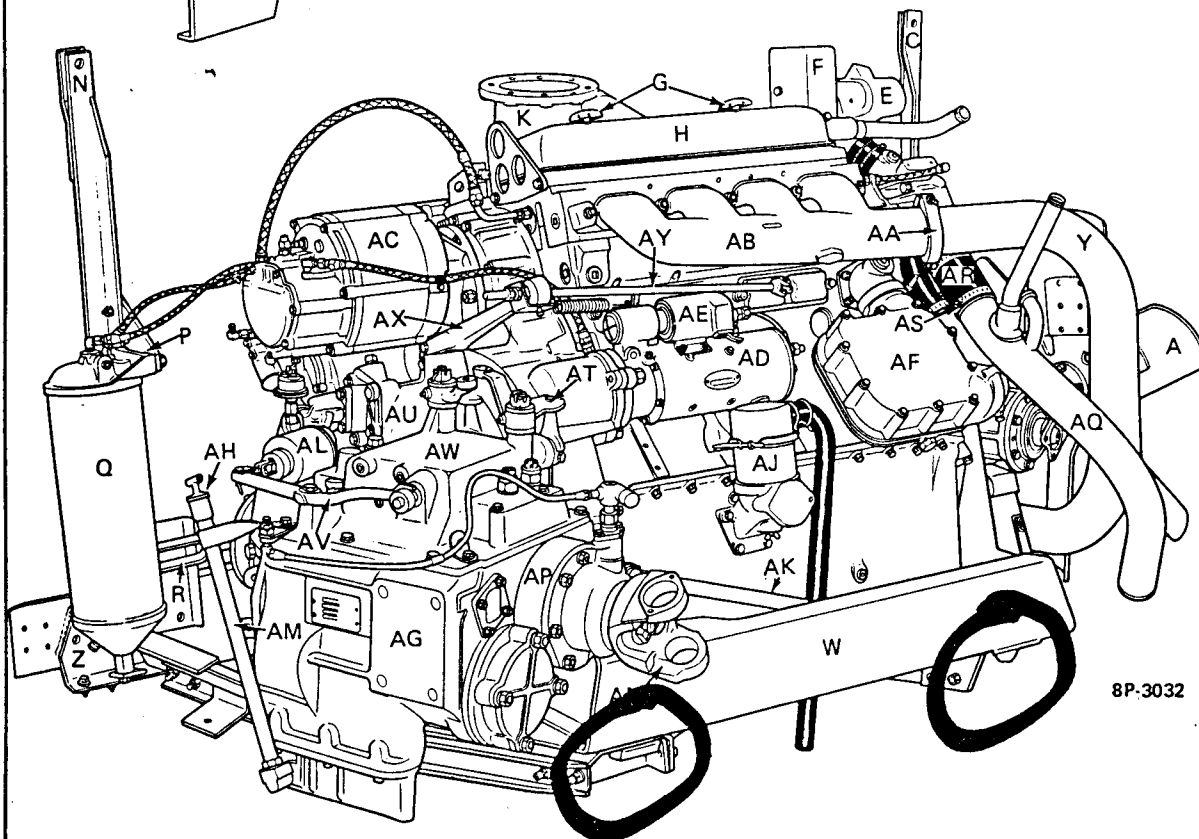
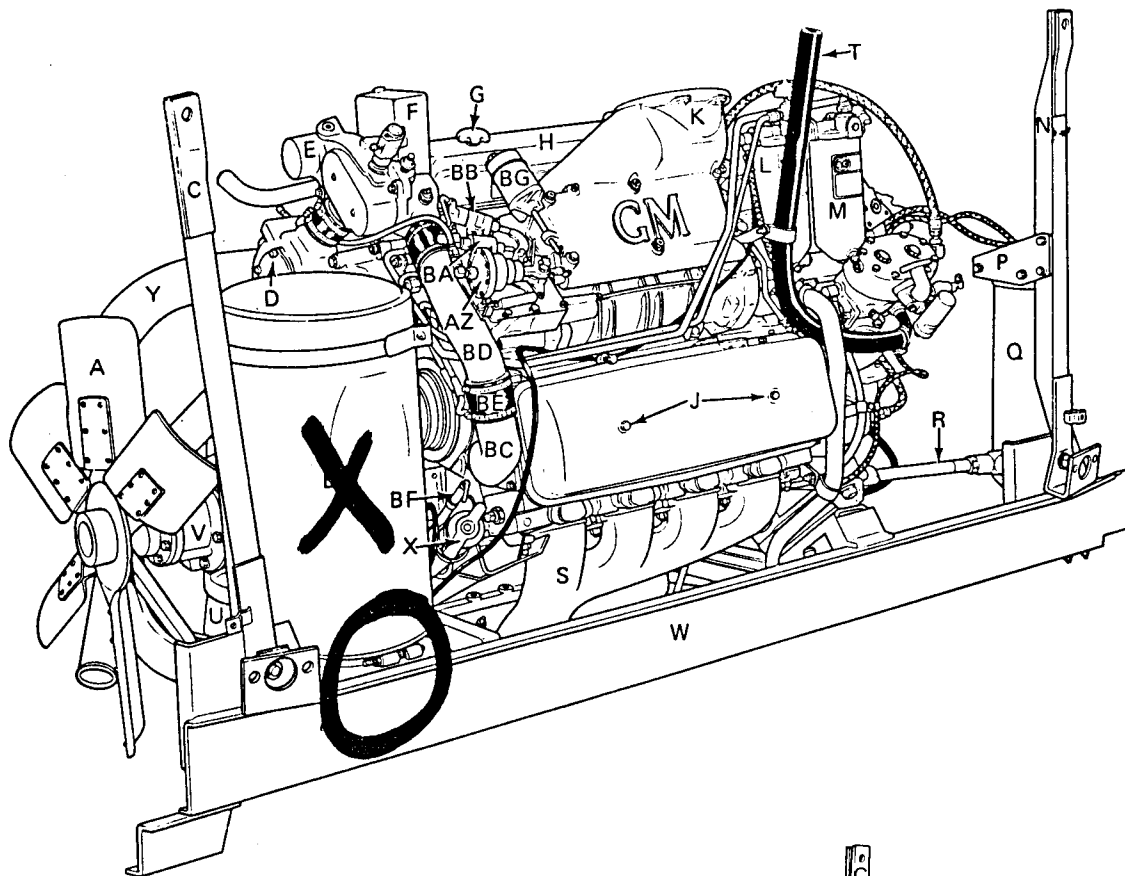
2 - Excessive Smoking; A Detroit engine like most all engines should not continuously smoke. Some smoke can be expected when engine is started cold, however smoking should clear fairly quick and remain clear after engine warm up. There are of course many factors that can cause a engine to smoke excessively, some major and some minor. Here again the bottom line is, that if the engine smokes continuously this indicates a repair is needed.

3 - Oil Leaks; Oil dripping from air box breather tubes is to be expected on any Detroit engine, this is normal. However a lot of oil leaks in different areas on the engine could indicate an excessive amount of crank case pressure which inturn could point to a possible internal problem. All oil leaks should be taken into account because some can be fairly expensive to repair.

4 - Excessive Engine Noise; This can often require a trained ear to pick out what is a excessive engine noise. Therefore if the engine is making a noise that causes any concern it is always a good idea to let a trained Detroit mechanic check the noise for possible problems. A second opinion in a matter like this is always a wise move.

5 - A general overview of the condition of Water Hoses, Fuel Lines, Air Lines etc., not only in the engine area but all through the coach can be a good indication on how well the coach as been maintained.

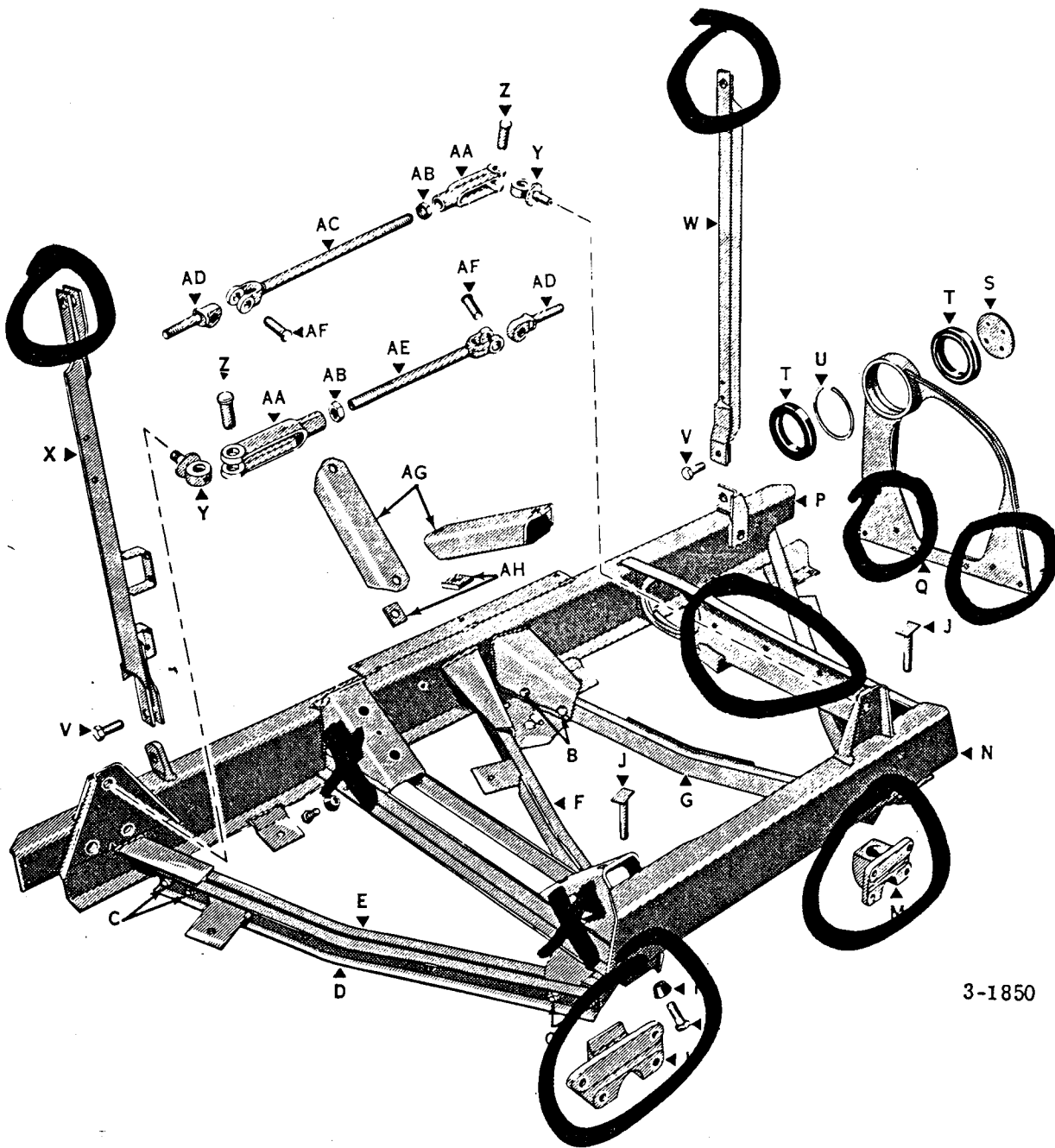
Check all areas on the diagrams that follow which are marked with a X or O. These areas are critical for checks because of Corrosion, Cracks and Rust. These places that are marked are standard problem areas on GMC coaches.



8P-3032

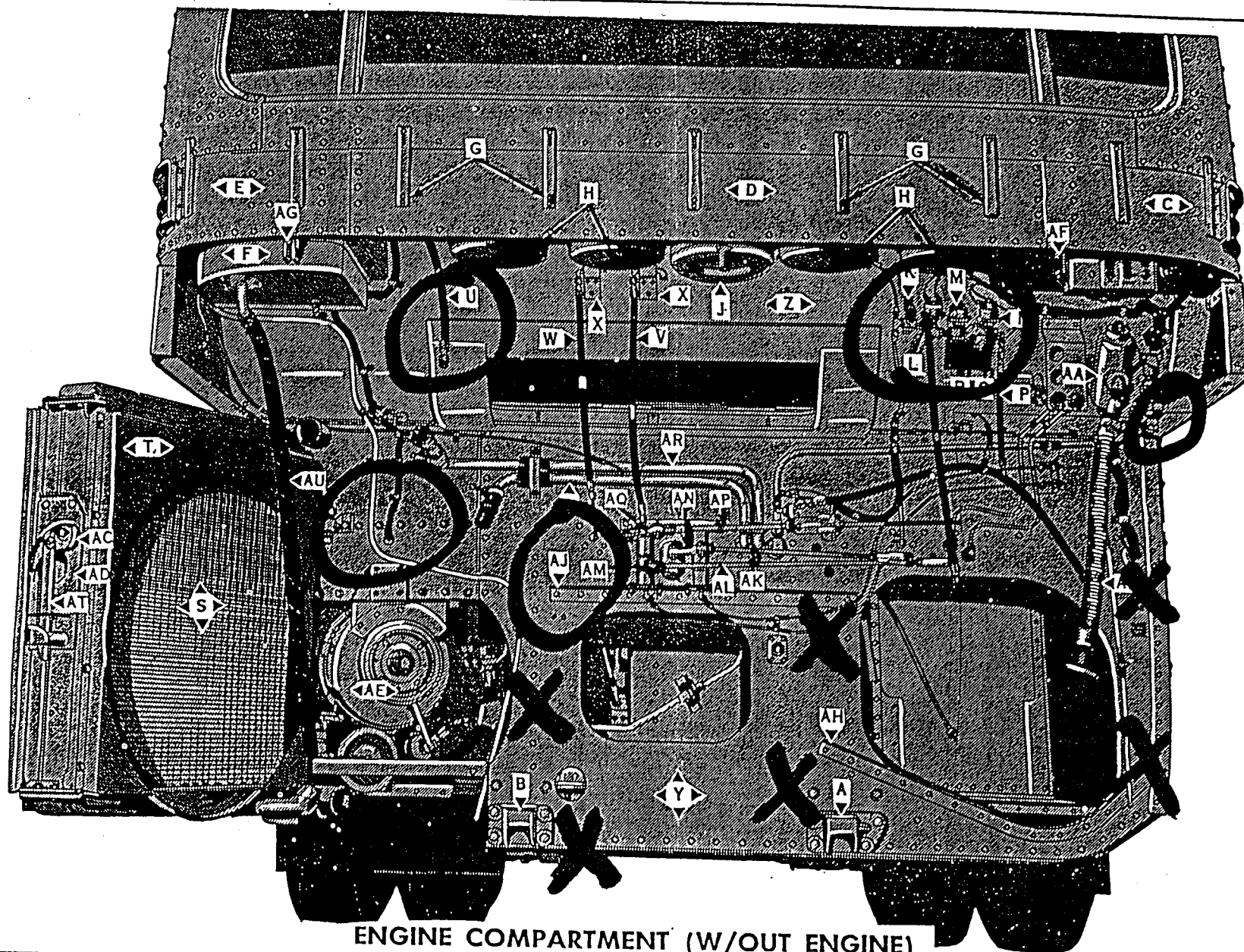
COMPLETE ENGINE W/MECH. TRANS. (8V-71)





3-1850

ENGINE CRADLE



ENGINE COMPARTMENT (W/OUT ENGINE)

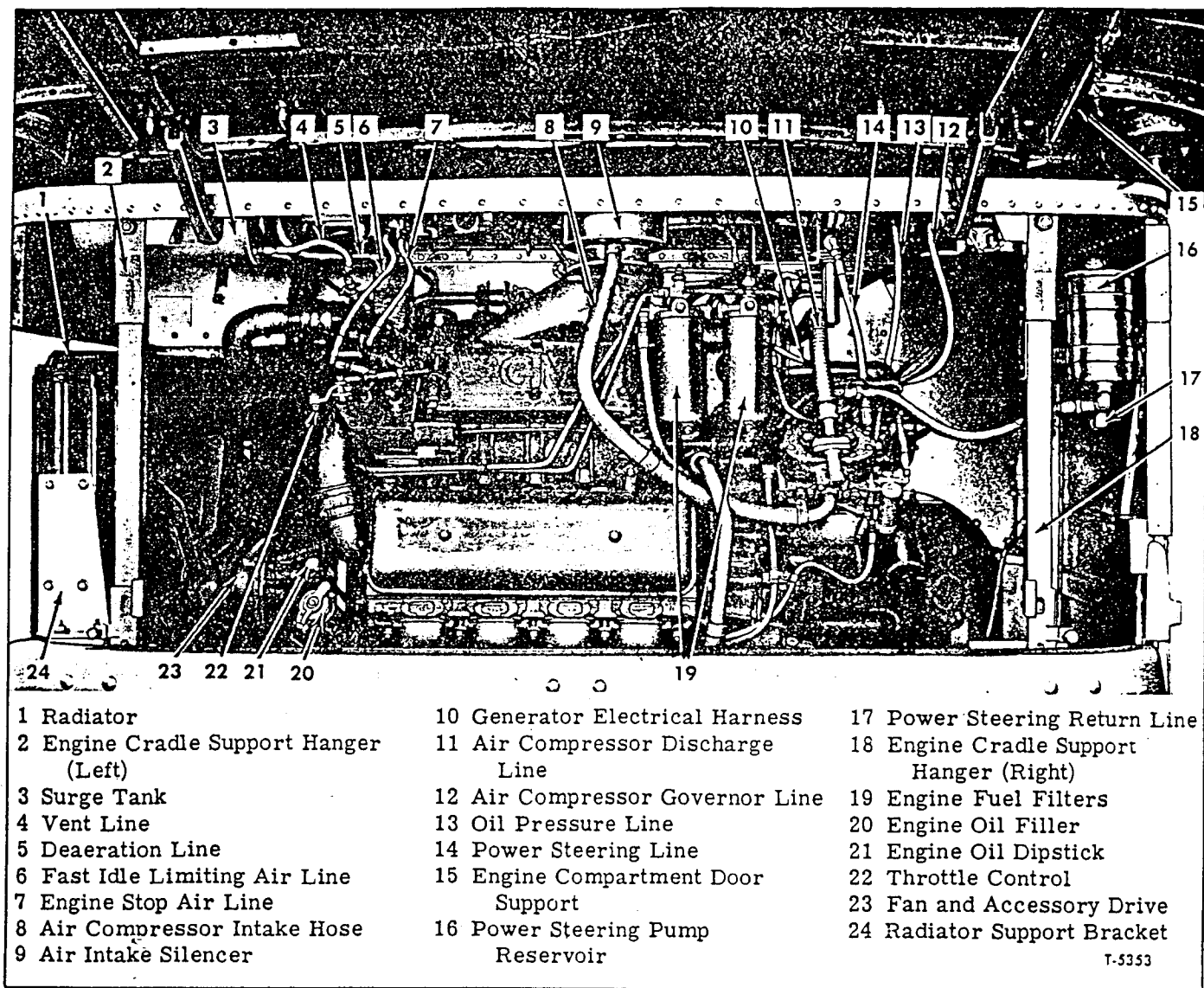
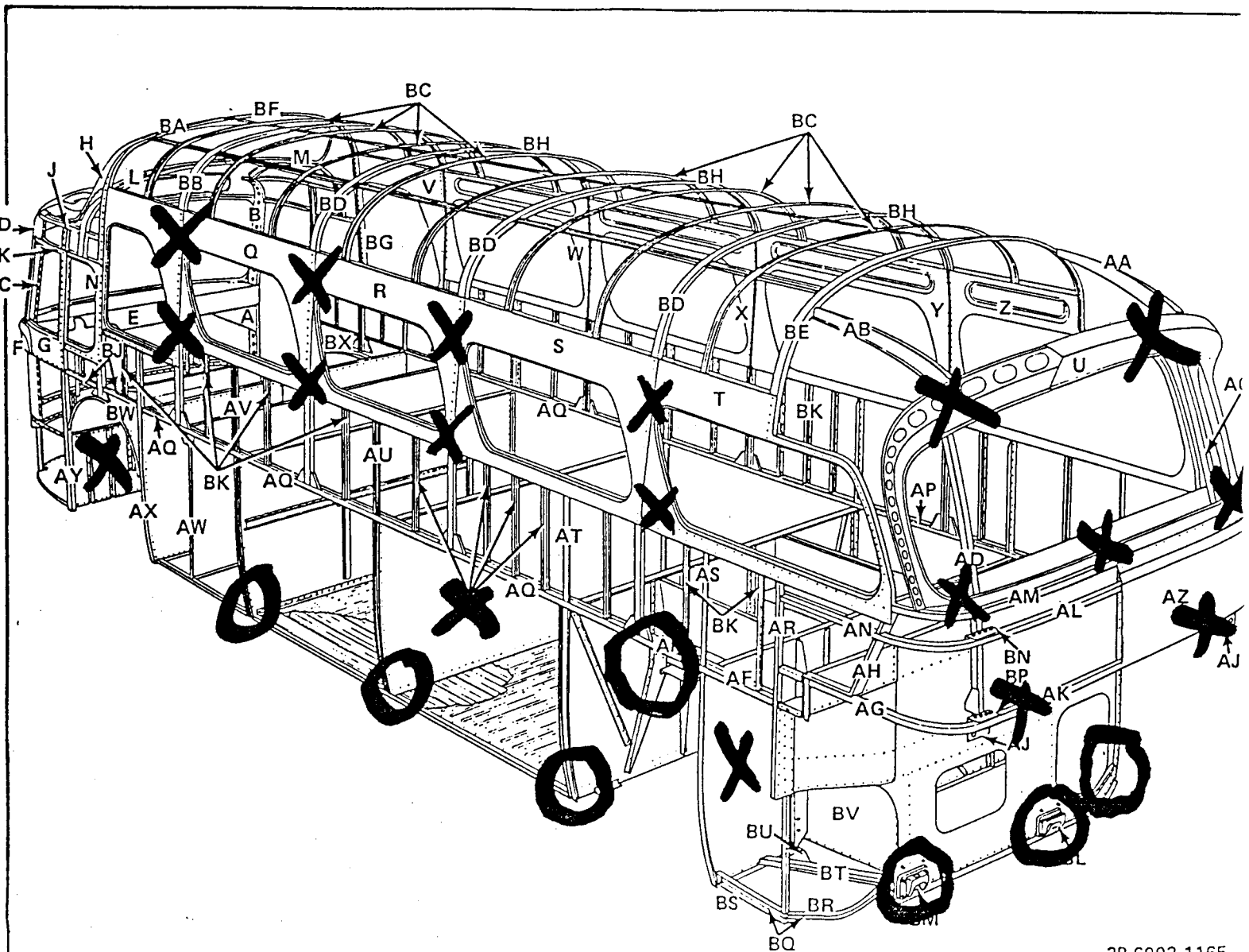
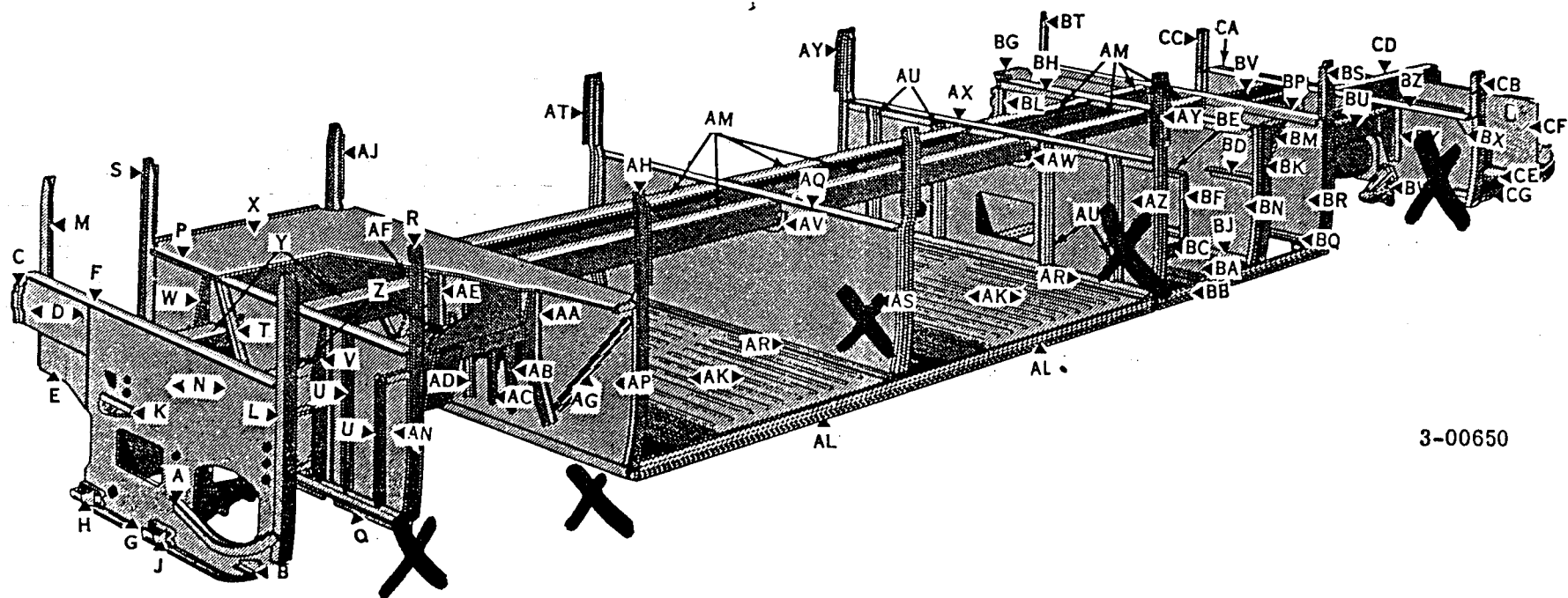


Figure 1—Power Plant Installed (Typical)

## Section #2 Body & Frame:

1- This section will cover the areas in the body and frame that are prone to Cracks, Rust and Corrosion. It is very important to remember that the geographical area that the coach has been operated in as a direct effect on the amount of Rust and Corrosion that may be found on the coach. A quick way to determine if there is rust behind the skins on a coach is to sight down parallel with the body of the coach. If in sighting down the body of the coach and there appears to be any Bulges in the skins, this could be a indication that there is rust built up behind the skins causing them bulge. Also look closely for a group of body rivets that are loose for this could also indicate that rust has built up behind the skins, (Body Panels) causing the rivets to pull loose. Check all areas on the diagrams that follow which are marked with a X or O for Rust, Cracks and Corrosion.

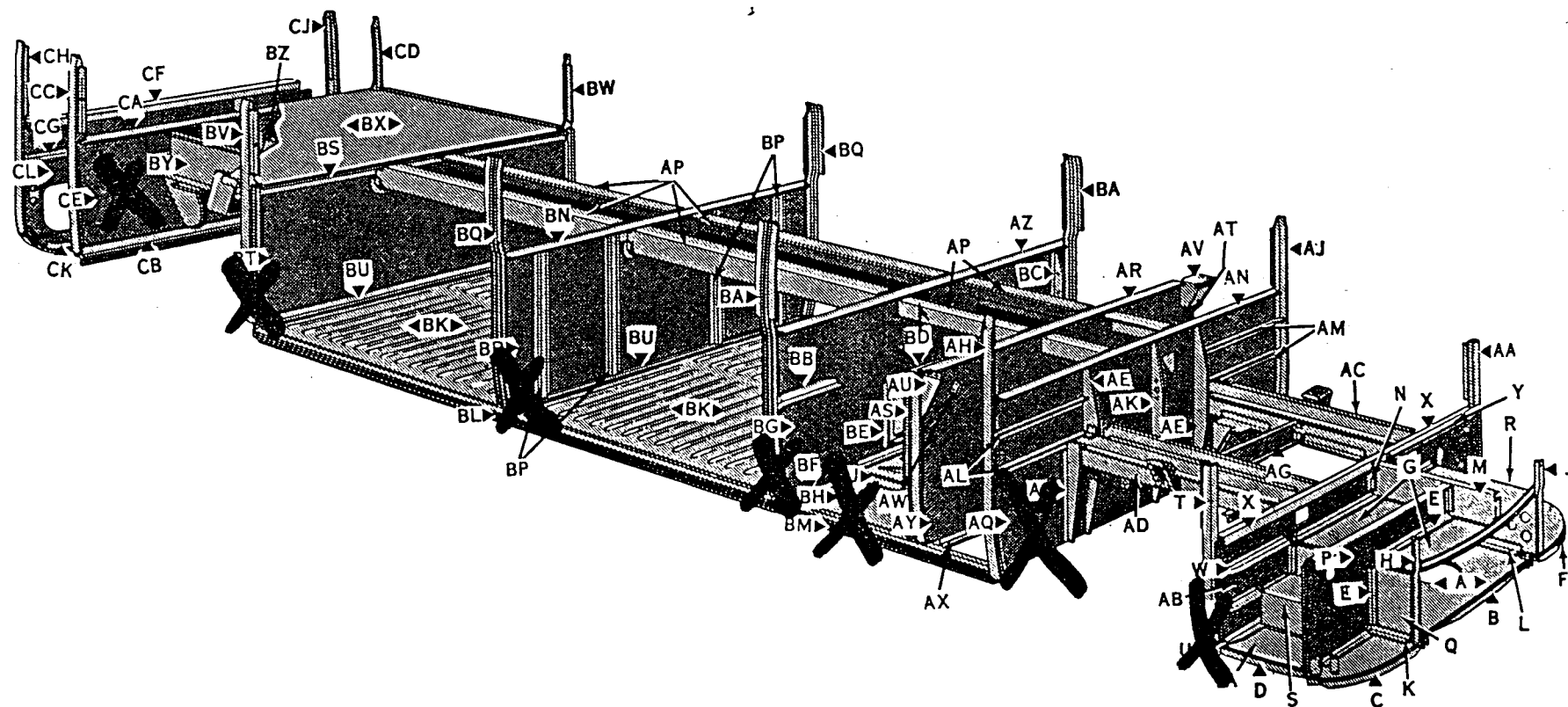




3-00650

UNDERFRAMING (REAR VIEW)

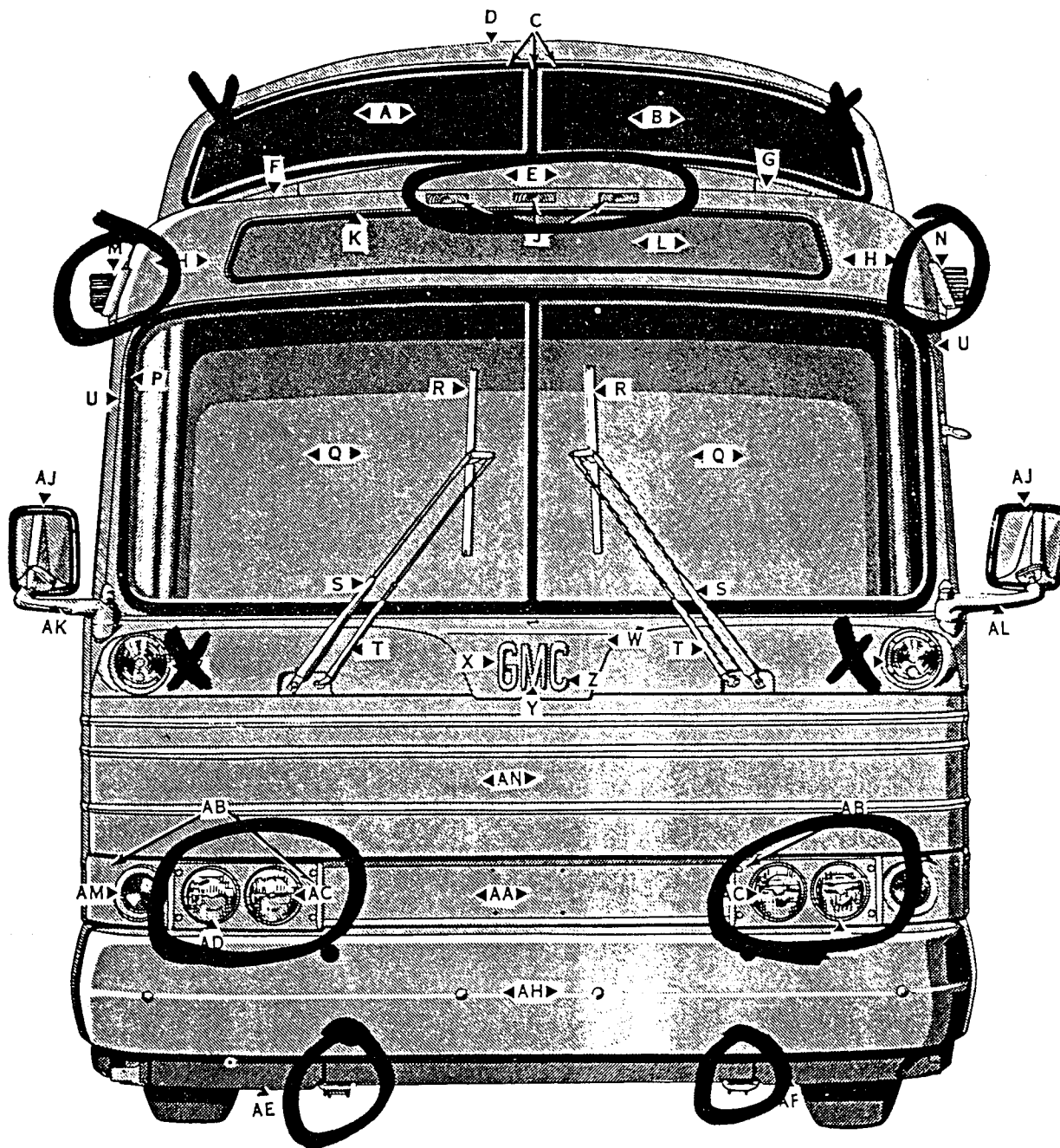
BODY



UNDERFRAMING (FRONT VIEW)

3-00649

BODY

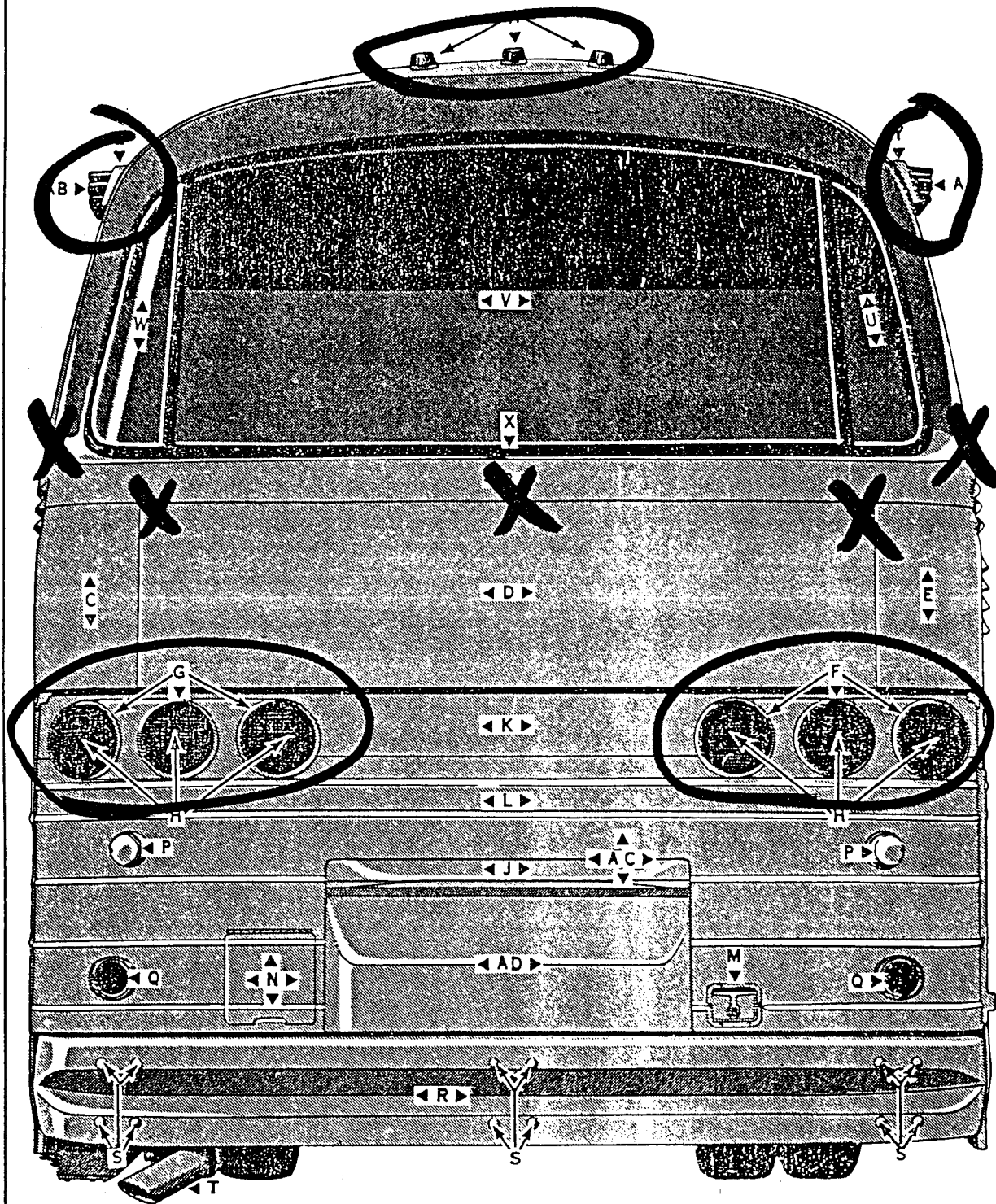


3P-39

### FRONT END OUTSIDE VIEW



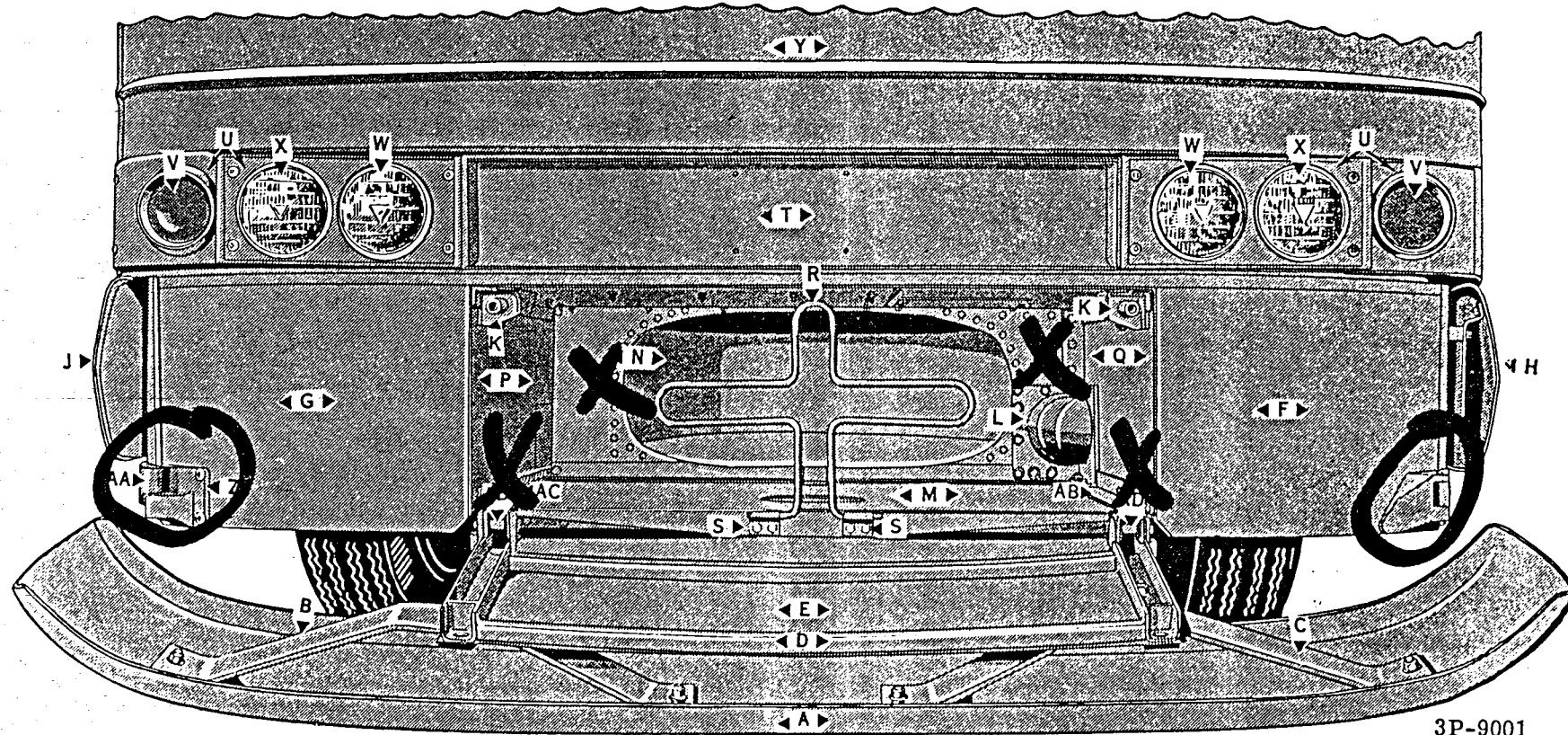
Check around all windows for Rust  
and also for leaks. Check window seals.



REAR OUTSIDE VIEW  
(4108-4905)

3P-84

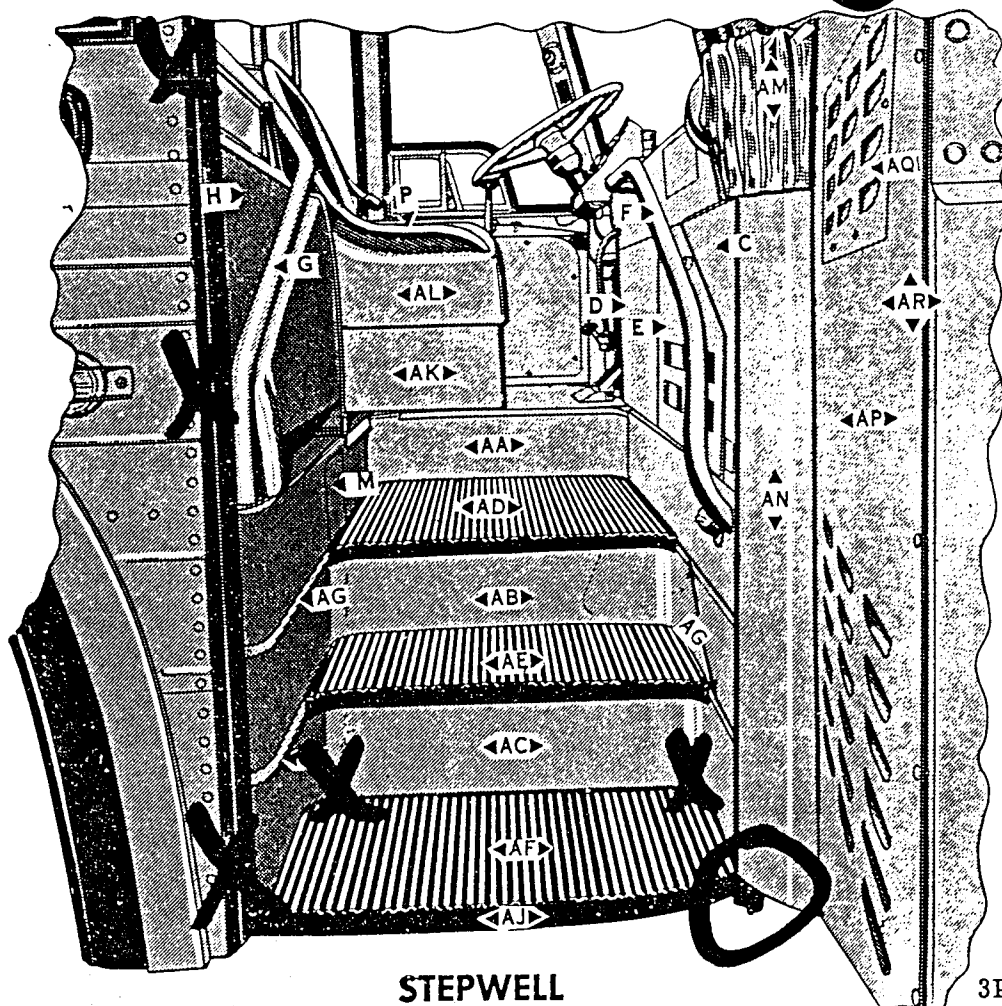
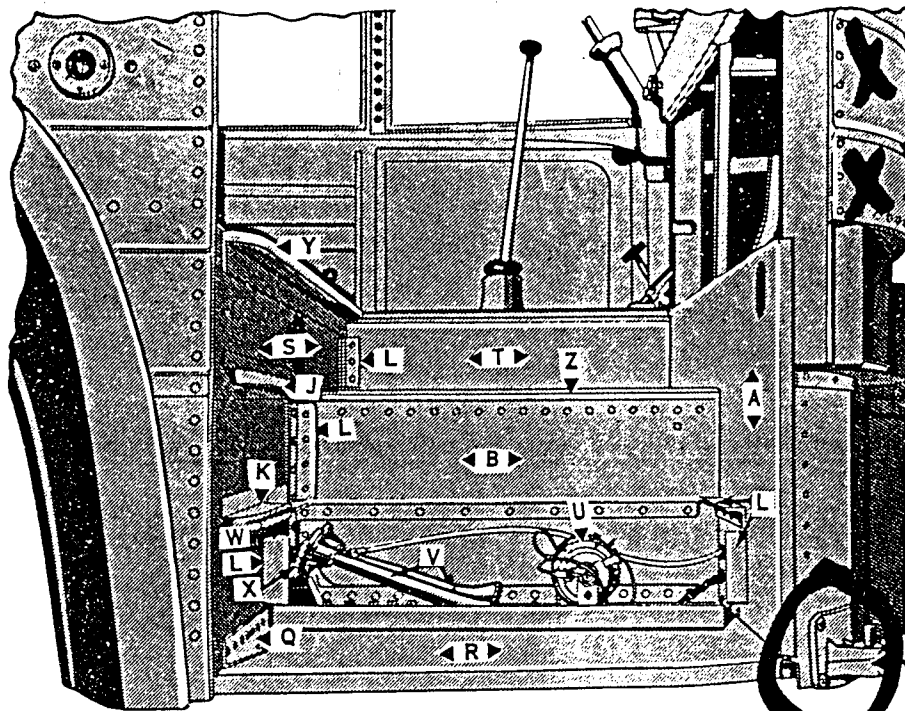




3P-9001

## SPARE TIRE COMPARTMENT AND DOOR

A	See Text	BAR-impact	11-06	L	2293362	BRACKET-center bearing	16-20	W	See Text	BEAM ASSY.-headlamp (LH)	7-01
B	See Text	BAR-backing, (RH)	11-06	M	See Text	PLATE-bottom	25-09	X	See Text	BEAM ASSY.-headlamp (RH)	7-01
C	2472466	BAR-backing, (LH)	11-06	N	See Text	BULKHEAD-frt. axle, frt.	25-49	Y	2458447	PANEL-frt. end (fluted)	25-03
D	See Text	DOOR ASSY.	25-09	P	See Text	PANEL-side, (RH)	25-09	Z	2461111	HINGE-lower, body half	25-51
E	See Text	PANEL-door	25-09	Q	2413018	PANEL-side, (LH)	25-09	AA	2457885	HINGE-lower, door half	25-51
F	2472046	PANEL-frt. (LH) corner	25-03	R	2301248	CLAMP-carrier	25-09	AB	2467417	ANGLE-inner (LH) (1-1/2 x 2 x 8 ft. CTL)	25-09
G	See Text	PANEL-frt. (RH) corner	25-03	S	2301249	PLATE-hinge	25-09	AC	See Text	ANGLE-inner (RH) (1-1/4 x 2 x 8 ft. CTL)	25-09
H	2418314	EXTENSION-frt. bumper (RH)	11-06	T	2463224	PANEL ASSY.	25-06	AD	2297869	PIN-door hinge	25-09
J	2418315	EXTENSION-frt. bumper (LH)	11-06	U	8879454	HOUSING	7-01				
K	2298736	BRACKET-door lock	25-09	V	8867218	REFLECTOR ASSY.	25-85				



STEPWELL

3P-3027

### Section #3 Suspension:

This section will cover the Suspension of the coach. To properly check the suspension of a coach the coach must be viewed from underneath. This will require a pit or a surface area that allows a person to slide underneath. There are four parts of the suspension system that should be checked to help determine the condition of the system, they are as follows.

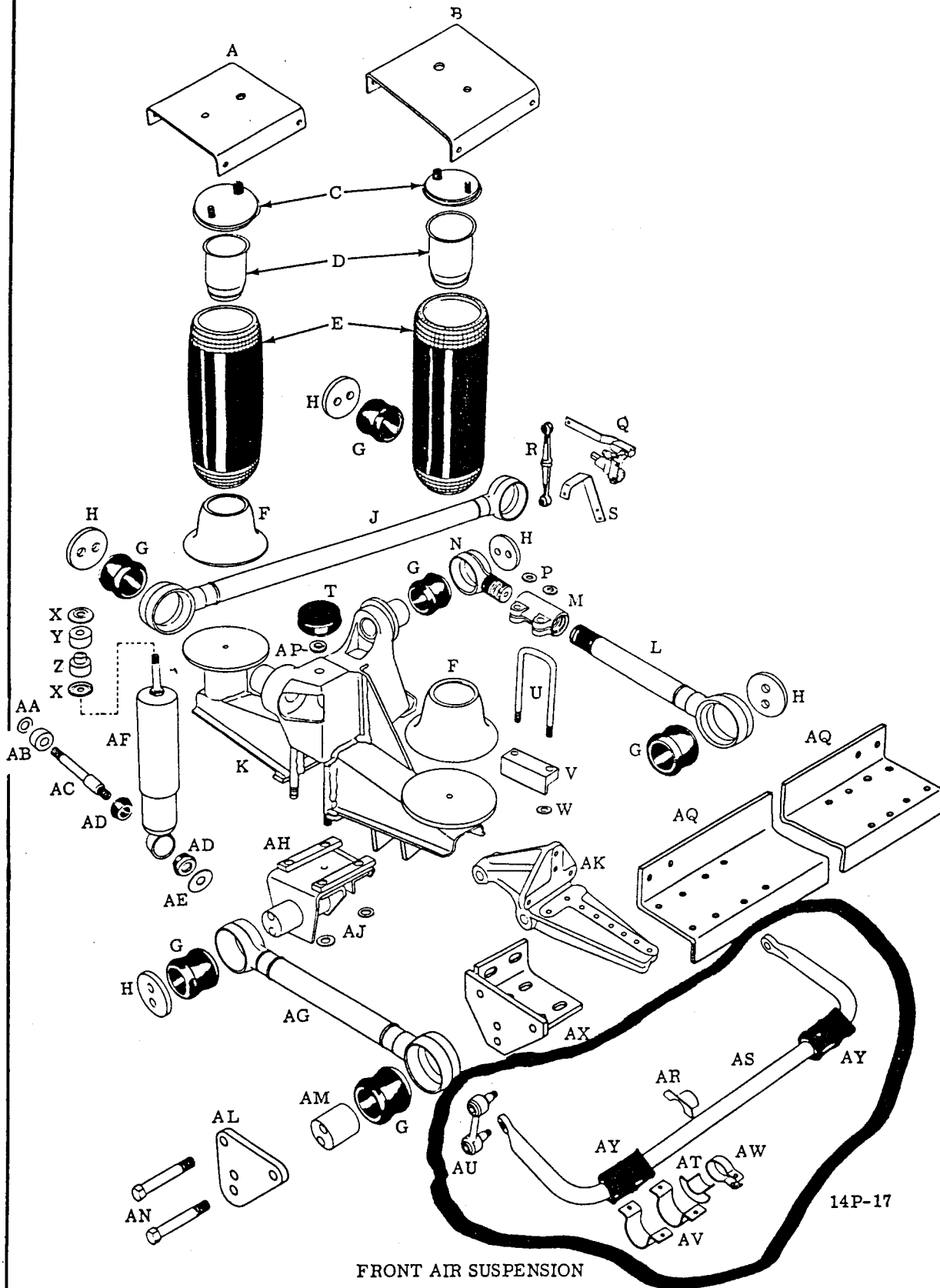
**Radius Arms;** which are circled in the following diagrams. The radius arms have rubber bushing inside the round section at each end. The rubber bushing should appear intact and pliable. Also note any shiny areas on the metal housing where the bushing are installed. A wide shiny area of more than 1/4" can indicate worn bushings causing excessive movement of the front or rear axle. The rubber bushings are not very expensive, however the labor required to replace these bushing's can be rather high. Remember that there are radius arms on the top and bottom of the front and rear axles.

**Air Bags;** which are marked with a X in the following diagrams. Check the air bags for Dry Rot, Cracks and Bulges. Check the steel top mounting plates for excessive Rust or Cracks. Check the bottom mounting cones for Cracks and also for excessive Rust underneath. One sure way to check for leaks in the air bag system is to start coach, let the air bags fill to maximum air pressure. Shut engine down and watch coach for period of time to see if coach starts to lower on one side. Some air leaks in the air bag system is fairly common in coaches, however a coach with a properly maintained air suspension system should remain level for quiet a long period of time,(the longer the better).

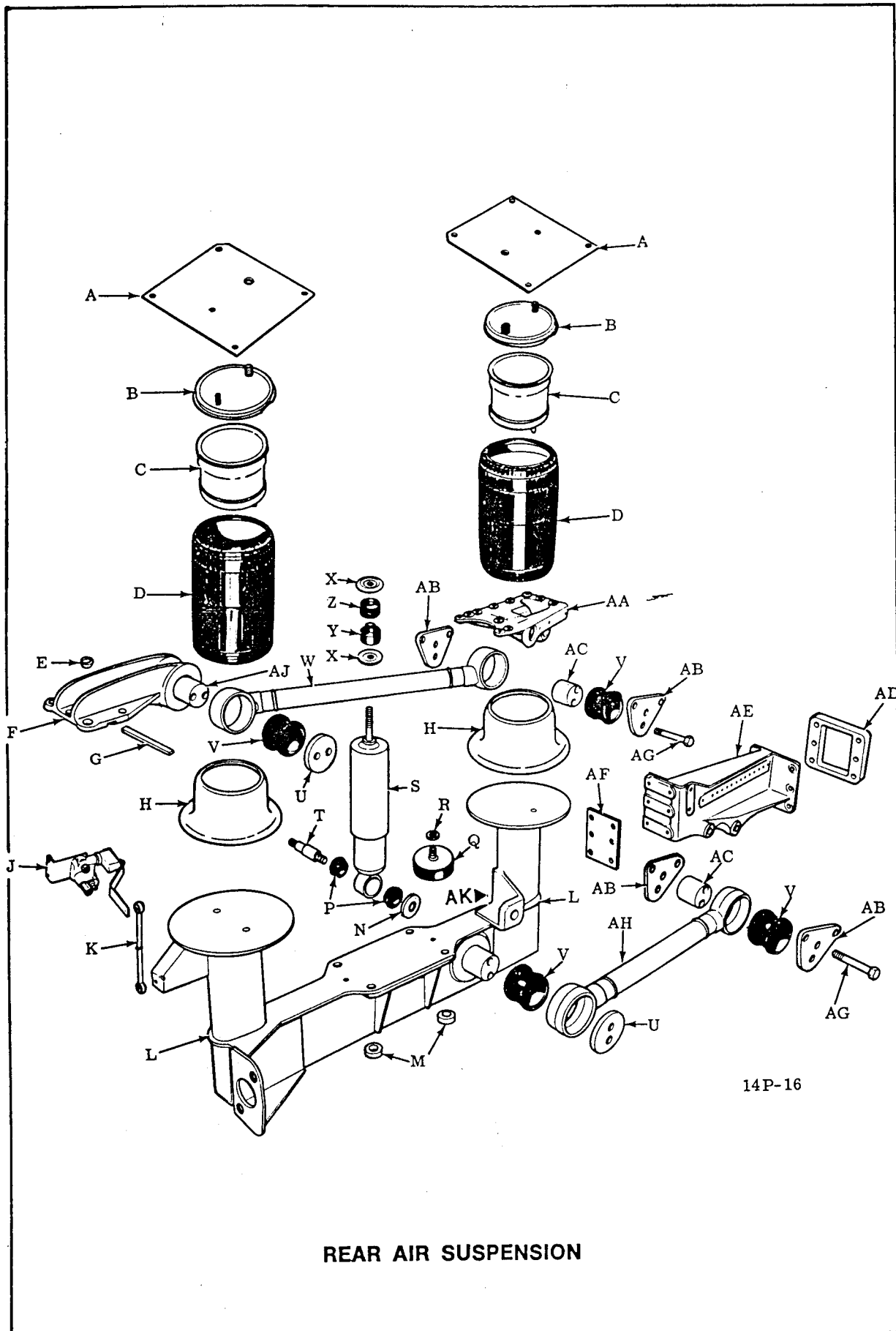
**Stabilizer Bar;** which is circled on the front air suspension break-down diagram only,(not shown in rear). Some models do not have stabilizer bars however most do and need to be checked. These bars are connected to the front and rear axles with Bar Links,(AU on diagram). Check these links for distortion in rubber around mounting studs. The stabilizer bar is attached to body of coach with rubber bushings and U-shaped clamps. Check rubber bushings for Dry Rot and excessive wear. The stabilizer system works to prevent excessive swaying of coach body.

**Shocks;** Check for any oil leaking from the shock. This will often appear as a wet area on the housing of the shock. Driving the coach on the highway and secondary roads is always a good idea to help determine the condition of the suspension and also will help to determine how sound the body of the coach may be. All these components of the suspension system can be repaired if needed, however finding what areas of the coach that need repair is the only way to determine what the true value of the coach may be.

# AIR SUSPENSION

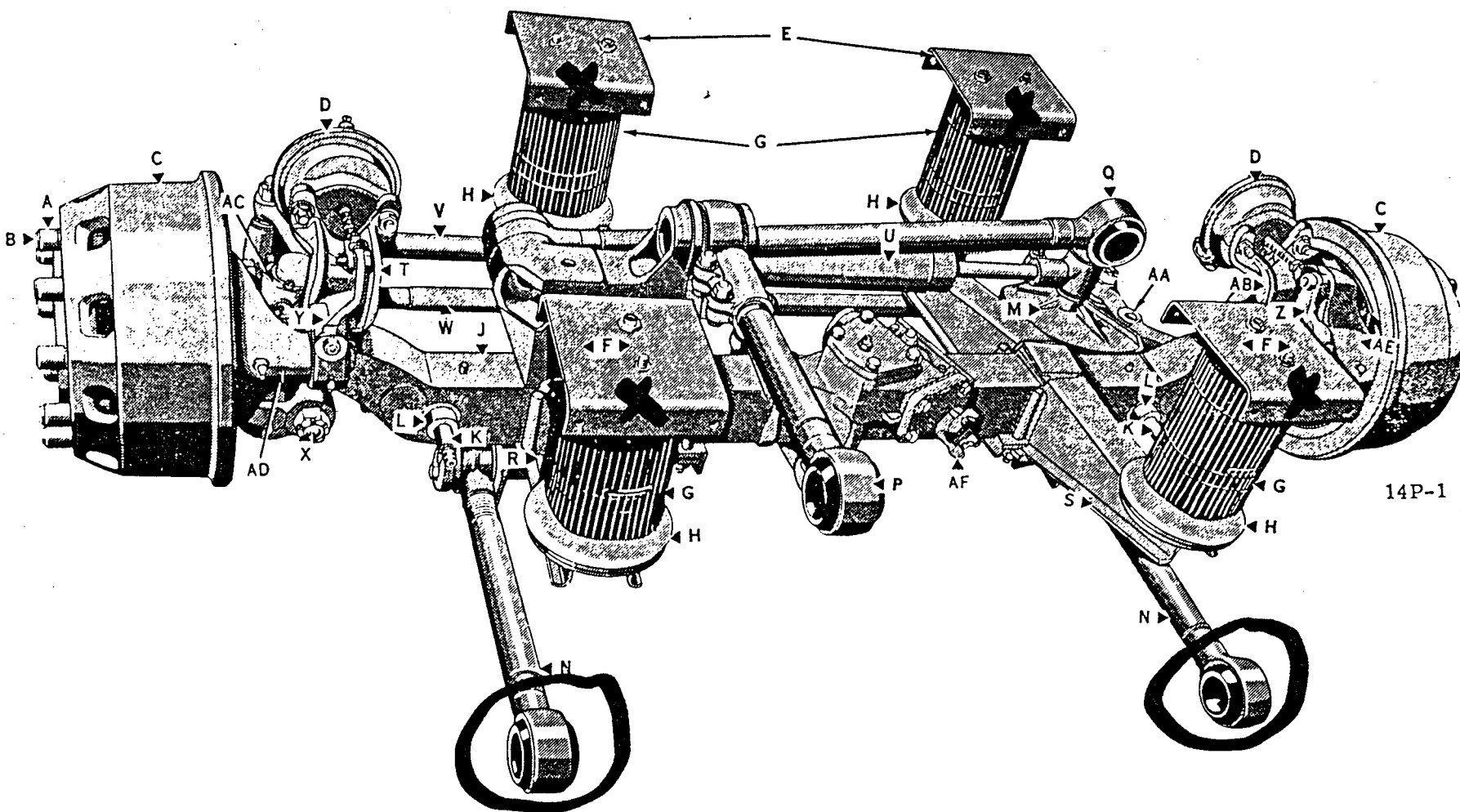


FRONT AIR SUSPENSION



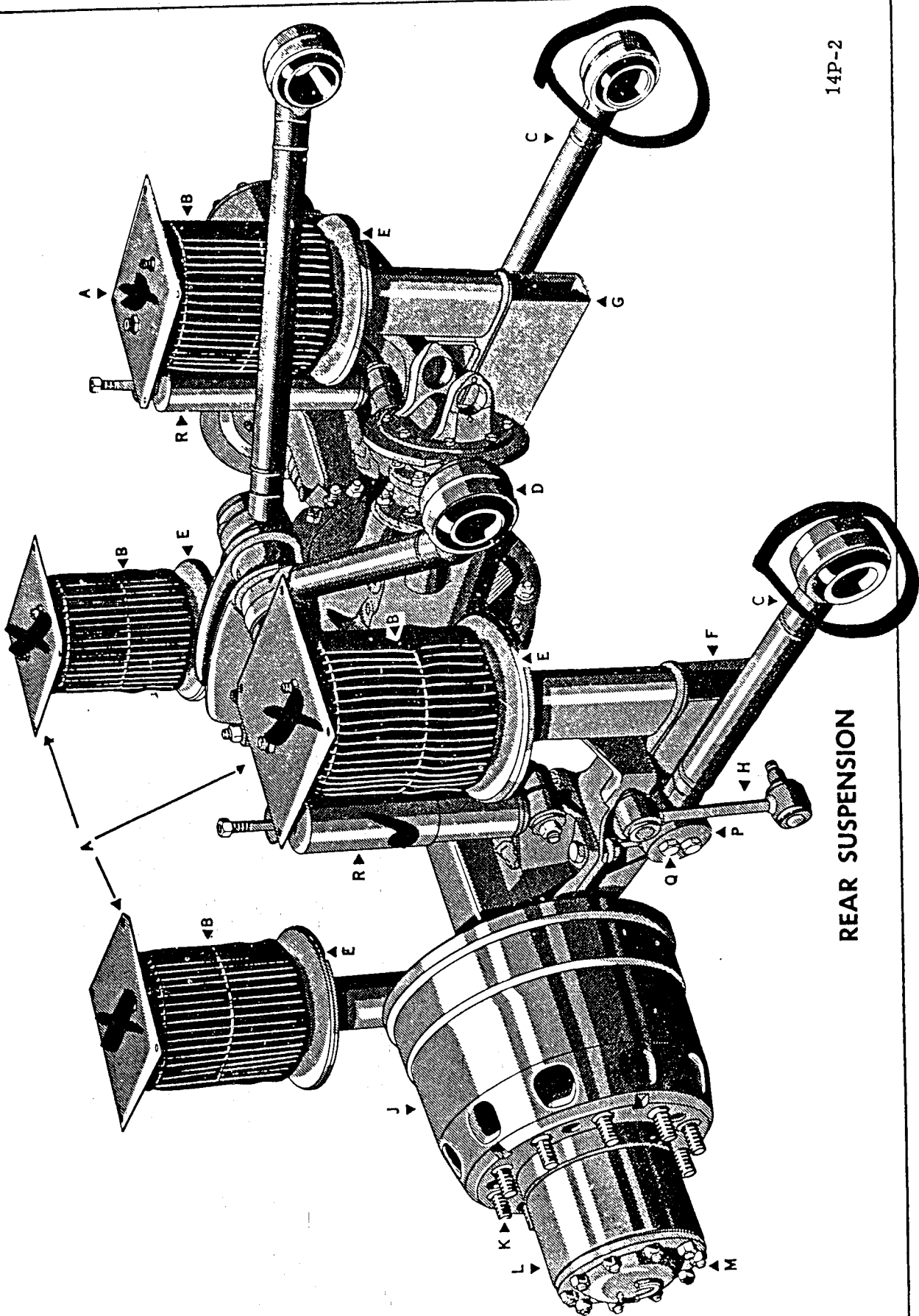
14P-16

REAR AIR SUSPENSION



14P-1

FRONT AIR SUSPENSION



REAR SUSPENSION



#### Section #4 Miscellaneous:

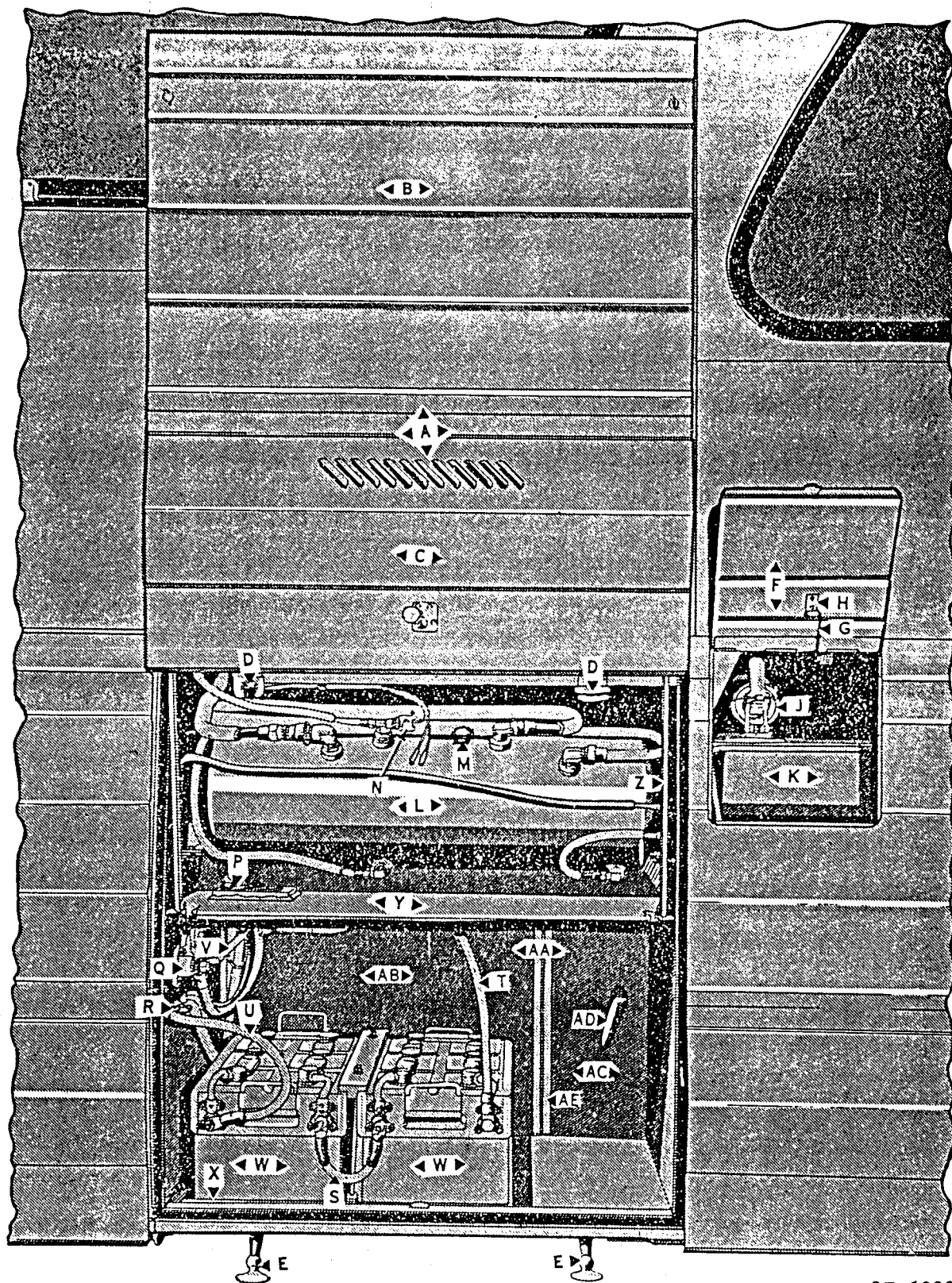
**Steering:** The P8M-4905A's that were produced in the early 1970's were equipped with a Booster assist power steering system. These systems can be easily identified by the large Hydraulic cylinder connected to the steering linkage at the front axle. The P8M-4905A's that were produced starting around 1975 and all the H8H-649's were equipped with a Full Integral Sheppard Steering Gear (no booster cylinder at axle). This update was due to the many steering problems incorporated with the booster assist system. The booster system were prone to wandering, and caused a constant correction of the steering wheel to maintain a straight course. The Sheppard steering system eliminated these problems and made for a better driving coach all around. The best way to check the condition of the steering system is to drive the coach on the highway and also on a secondary road. On the highway the coach should hold a straight tract with very little wandering if any. Some wandering is to be expected on coaches with booster assist system, however even these models should not wander excessively. Driving on the secondary road and around curves, check for coach trying to dip into the turns (over-driving). Also coach should not be hard to bring back to a straight course. Any of these conditions described above could indicate a problem in the steering system. All coaches take a little getting use to, so if possible drive coach long enough to get the fell of what is going on.

**Air System:** It is always a good idea to check the air system for oil contamination and also for a excessive amount of water in the air tanks. This is easily done by building up some air pressure and then opening a drain cock on one of the wet tanks on the coach. On the diagram marked Evaporator and Battery Compartment notice that there are air tanks located at the top of this compartment. Inside the small door that is also open in diagram,(Fuel Fill Door) on the left hand side there will be a drain cock. Open drain cock and check for oil contamination mixed with the escaping air. Excessive oil in the air system can indicate a worn air compressor. An excessive amount of oil in the system can cause problems with Rubber O-Rings and Diaphragms used in most all the air system components. Some water can be expected in when opening drain cock, however a coach that is properly maintained would have it's air tanks drained often, so a lot of water could indicate a poorly maintained coach.

**Electrical:** Check battery cables and ends for excessive corrosion or breaks. Check as many electrical systems, as possible such as, Lights ( inside and out), Heat and or Air Conditioning Blowers, Horn, Fast Idle Circuit, etc. Charging system should produce around 28 volts with all electrical systems on and the engine set on Fast Idle.

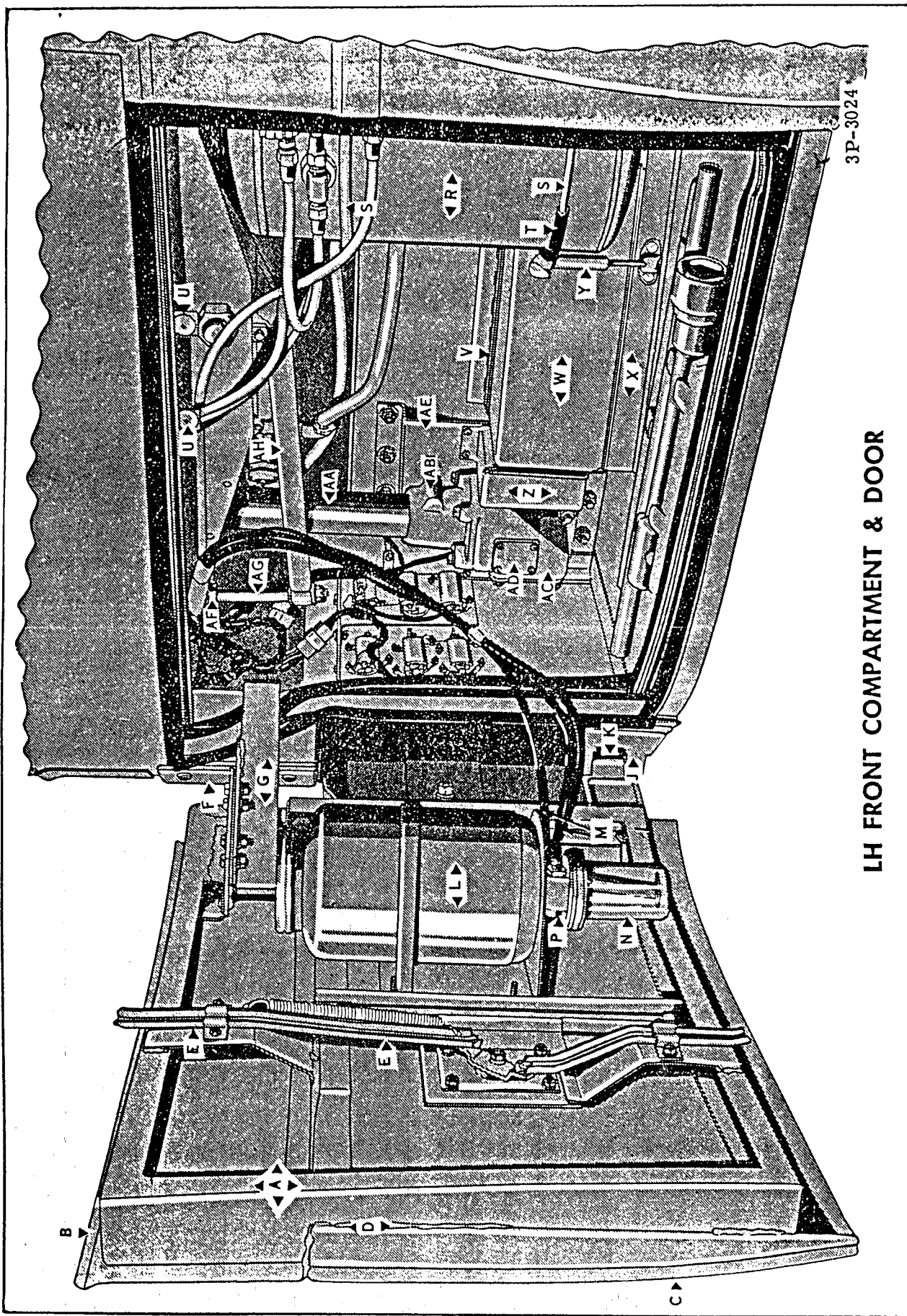
**Factory Air Conditioning:** The factory air conditioning systems on these coaches, over the years have been found to require continuous maintenance. The fact that they use the HCFC-22 freon, and therefore operate under very high head pressures, dictates that all hoses and lines be kept in sound condition. The compressor drive incorporates a clutch that looks and functions much in the same way as a clutch for the drive train in a small car or truck. This clutch system and the safety systems used with this clutch are prone to failures, and have been the main factor causing many of the costly repairs experienced with these air conditioning systems. All through these systems cool the coach quite well when working properly they do require constant maintenance and are very expensive to repair when a failure occurs.

**Final Note:** Always ask for service records if possible. Service records can be the best way to determine what repairs have been performed on the coach and therefore can help determine what repairs may be needed in the future.



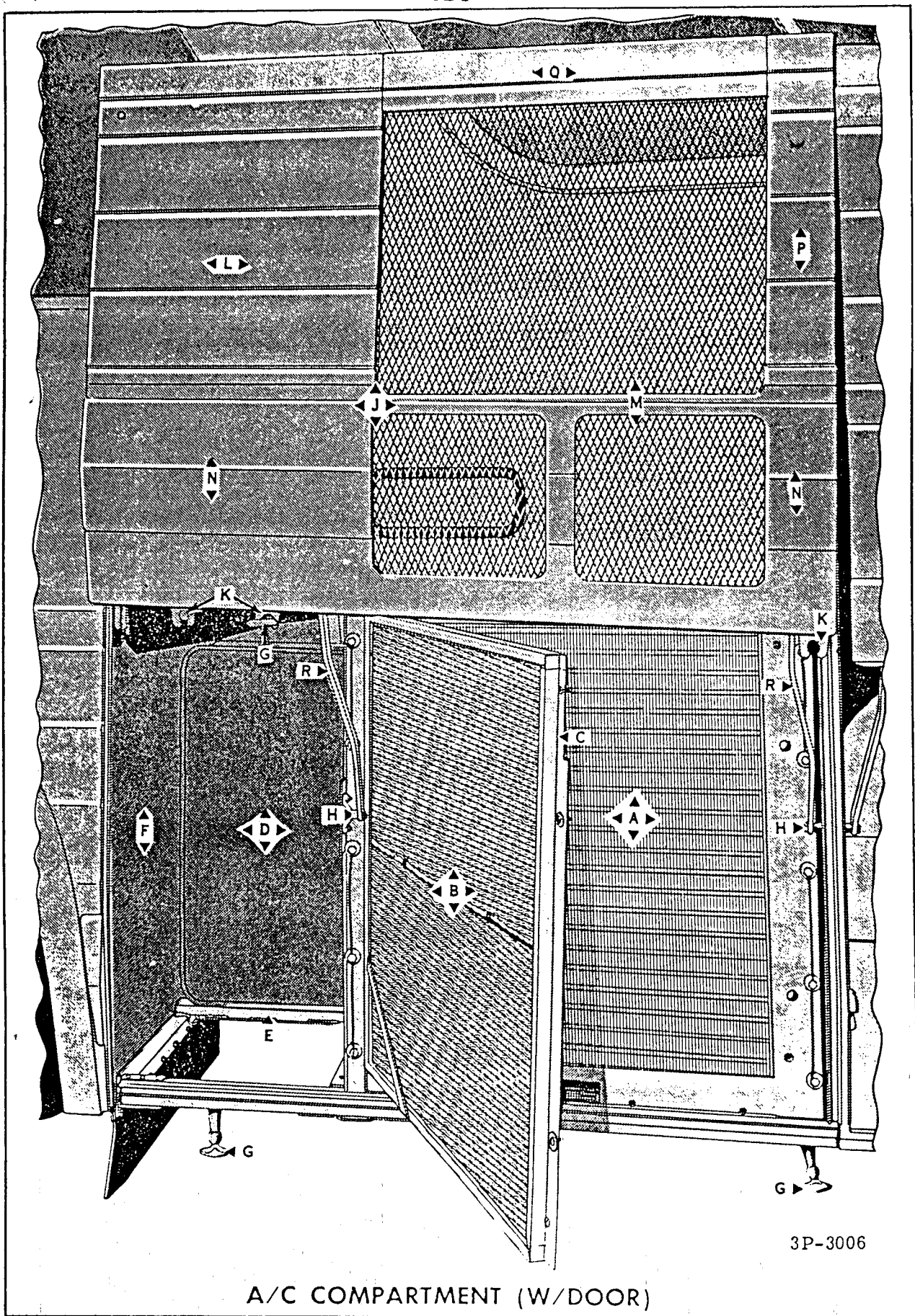
3P-10003

EVAPORATOR AND BATTERY COMPARTMENT  
(W/DOOR)



LH FRONT COMPARTMENT & DOOR



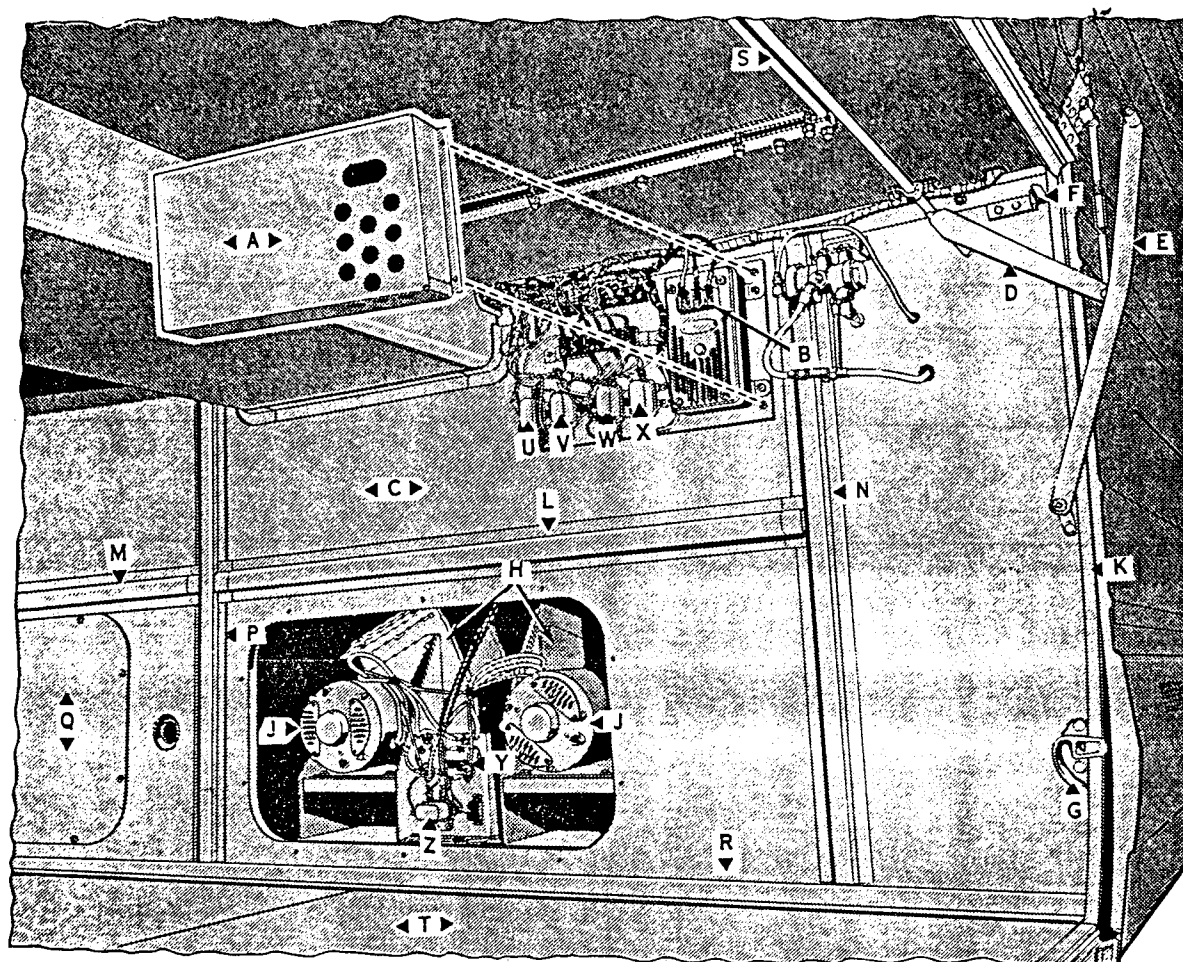


3P-3006

A/C COMPARTMENT (W/DOOR)

## ELECTRICAL SYSTEM

(IN BAGGAGE COMPT)



7P-2105

A	610687	COVER	7-37	L	2477201	CHANNEL-(center)	25-49D
B	See Text	REGULATOR ASSY.	7-31	M	2478186	CHANNEL-(LH)	25-49D
C	See Text	BULKHEAD-front inter.	25-49D	N	2477203	CHANNEL-(RH) (vert.)	25-49D
D	8877827	BAR-torsion, (RH)	25-27	P	2477202	CHANNEL-(LH) (vert.)	25-49D
D	8877828	BAR-torsion, (LH)	25-27	Q	2460730	COVER-access hole	25-47
E	2492593	ARM-pivot, (RH)	25-27	R	2467447	SUPPORT-(75" long, CTL)	25-44
E	2492594	ARM-pivot, (LH)	25-27	S	2236862	CHANNEL-(19-3/4" long, CTL)	25-44
F	2496746	PLATE-striker, (RH) (upper)	25-27	T	See Text	FLOOR ASSY.-(front)	25-34
F	2496747	PLATE-striker, (LH) (upper)	25-27	U	1116964	RELAY-gen. lghtg.	7-80
G	2296285	PLATE-striker, (RH) (lower)	25-27	V	1116964	RELAY-reading lamp	7-80
G	2296589	PLATE-striker, (LH) (lower)	25-27	W	1115901	RELAY-generator	7-80
H	699908	HOUSING-(RH)	25-64	X	1116964	RELAY-sensing, reg.	7-80
H	699904	HOUSING-(LH)	25-64	Y	672758	SWITCH-magnetic, blower mtr.	7-74A
J	5527643	MOTOR-(RH)	25-64	Z	1116964	RELAY-water pump	7-80
J	5527642	MOTOR-(LH)	25-64	AA	See Text	LINK ADJ.	25-27
K	2458120	POST-(RH)	25-17				